

CLAIMS

What is claimed is:

1 1. A method comprising:
2 determining by a first network management device, separate and distinct
3 from a first networking device of a network, whether the first networking device is
4 meeting a service level for a first group of network traffic of the network serviced by
5 the first network device; and

6 regulating a second group of network traffic of the network, also being
7 serviced by said first networking device, to assist the first networking device in
8 meeting the service level for the first group of network traffic, the second group of
9 network traffic being separate and distinct from said first group of network traffic.

1 2. The method of claim 1, wherein said service level is a selected one of a
2 service level goal and a service level commitment of said first networking device for
3 said first group of network traffic of the network serviced by said first networking
4 device.

1 3. The method of claim 1, wherein said first group of network traffic comprises
2 network traffic destined for/sourced from first one or more network nodes of said
3 network, and said second group of network traffic comprises network traffic destined
4 for/sourced from second one or more network nodes of said network that are
5 separate and distinct from said first one or more network nodes.

1 4. The method of claim 1, wherein said first group of network traffic comprises
2 network traffic destined for/sourced from a first client of a first network node of said
3 network, and said second group of network traffic comprises network traffic destined
4 for/sourced from a second client of the same first network node of said network.

1 5. The method of claim 1, wherein said first networking device is routing device.

1 6. The method of claim 1, wherein said method further comprises monitoring
2 one or more network traffic metrics associated with said first group of network traffic
3 that are at least partially indicative of whether the first networking device is meeting
4 said service level for said first group of network traffic.

1 7. The method of claim 6, wherein said service level comprises a selected one
2 of a reliability service level and a performance service level.

1 8. The method of claim 6, wherein said monitoring is performed at said first
2 networking device.

1 9. The method of claim 6, wherein said monitoring is performed away from said
2 first networking device.

1 10. The method of claim 1, wherein said method further comprises determining
2 by a second network management device, away from said first networking device,
3 whether said second group of network traffic substantially contributes to said first
4 networking device's non-meeting of said service level for said first group of network
5 traffic, and said regulating of said second group of network traffic is conditionally

6 performed, upon determining said second group of network traffic substantially
7 contributes to said first networking device is not meeting of said service level for said
8 first group of network traffic.

1 11. The method of claim 10, wherein said first and second network management
2 devices are separate and distinct network management devices.

1 12. The method of claim 10, wherein said first and second network management
2 devices are the same network management device.

1 13. The method of claim 1, wherein said method further comprises determining
2 by a second network management device, away from said first networking device,
3 where said regulating is to be performed.

1 14 The method of claim 1, wherein said regulating comprises regulating said first
2 networking device with respect to services provided by said first networking device
3 to said second group of network traffic.

1 15. The method of claim 1, wherein said regulating comprises regulating a
2 second networking device of said network with respect to services provided by said
3 second networking device to said second group of network traffic.

1 16. The method of claim 1, wherein said method further comprises determining
2 by a second network management device, whether said second group of network
3 traffic are being regulated, and if said second group of network traffic are being
4 regulated, whether the regulation is to be moderated.

1 17. A networking apparatus comprising:

2 a first determination function to determine if a first network device of a
3 network is meeting a service level for a first group of network traffic serviced by the
4 first network device, the first network device being separate and distinct from the
5 networking apparatus; and

6 a regulation function in cooperation with the first determination function to
7 regulate a second group of network traffic of the network to assist the first
8 networking device in meeting the service level for the first group of network traffic,
9 the second group of network traffic being separate and distinct from said first group
10 of network traffic.

1 18. The apparatus of claim 17, wherein said service level is a selected one of a
2 service level goal and a service level commitment for said first group of network
3 traffic of the network.

1 19. The apparatus of claim 17, wherein said first group of network traffic
2 comprises network traffic destined for/sourced from first one or more network nodes
3 of said network, and said second group of network traffic comprises network traffic
4 destined for/sourced from second one or more network nodes of said network that
5 are separate and distinct from said first one or more network nodes.

1 20. The apparatus of claim 17, wherein said first group of network traffic
2 comprises network traffic destined for/sourced from a first client of a first network
3 node of said network, and said second group of network traffic comprises network

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4 traffic destined for/sourced from a second client of a second network node of said
5 network that are separate and distinct from said first client of said first network node.

1 21. The apparatus of claim 17, wherein said first networking device is routing
2 device.

1 22. The apparatus of claim 17, wherein said apparatus further comprises a
2 monitoring function coupled to said first determining function, to monitor one or more
3 network traffic metrics associated with said first group of network traffic that are at
4 least partially indicative of whether the first networking device is meeting said
5 service level for said first group of network traffic.

1 23. The apparatus of claim 22, wherein said monitoring function monitors said
2 one or more network traffic metrics associated with said first group of network traffic
3 at said first networking device.

1 24. The apparatus of claim 22, wherein said monitoring function monitors said
2 one or more network traffic metrics associated with said first group of network traffic
3 away from said first networking device.

1 25. The apparatus of claim 17, wherein said service level comprises a selected
2 one of a reliability service level and a performance service level.

1 26. The apparatus of claim 17, wherein said apparatus further comprises a
2 second determination function in cooperation with said first determination function
3 and said regulation function, to remotely determining away from said first networking

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4 device, whether said second group of network traffic substantially contributes to said
5 first networking device's non-meeting of said service level for said first group of
6 network traffic, said regulating function conditionally regulates said second group of
7 network traffic if said second group of network traffic is determined to substantially
8 contribute to said first networking device in not meeting said service level for said
9 first group of network traffic.

1 27. The apparatus of claim 17, wherein said apparatus further comprises a
2 second determination function in cooperation with said first determination function
3 and said regulation function, to remotely determine, away from said first networking
4 device, where said regulating is to be performed.

1 28 The apparatus of claim 17, wherein said regulation function regulates said
2 first networking device with respect to services provided by said first networking
3 device to said second group of network traffic.

1 29. The apparatus of claim 17, wherein said regulation function regulates a
2 second networking device of said network with respect to services provided by said
3 first networking device to said second group of network traffic.

1 30. The apparatus of claim 17, wherein said apparatus further comprises a
2 second determination function, in cooperation with said first determining function
3 and said regulation function, to determining if said second group of network traffic
4 are being regulated, and if said second group of network traffic are being regulated,
5 whether the regulation is to be moderated.

1 31. A method comprising:

2 determining by a first network management device, away from a first
3 networking device of a network, whether the first networking device is meeting a
4 service level for a first group of network traffic of the network serviced by the first
5 networking device;

6 determining by a second network management device, away from said first
7 networking device, whether a second group of network traffic substantially
8 contributes to said first networking device's non-meeting of said service level for
9 said first group of network traffic, the second group of network traffic being also
10 serviced by said first networking device, but separate and distinct from said first
11 group of network traffic; and

12 regulating the second group of network traffic of the network to assist the first
13 networking device in meeting the service level for the first group of network traffic, if
14 said second group of network traffic is determined to substantially contribute to said
15 first networking device's non-meeting of said service level for said first group of
16 network traffic.

1 32. The method of claim 31, wherein said method further comprises monitoring
2 one or more network traffic metrics associated with said first group of network traffic
3 that are at least partially indicative of whether the first networking device is meeting
4 said service level for said first group of network traffic.

1 33. The method of claim 31, wherein said monitoring is performed away from
2 said first networking device.

1 34. The method of claim 31, wherein said regulating comprises regulating a
2 second networking device of said network with respect to services provided by said
3 second networking device to said second group of network traffic.

1 35. The method of claim 31, wherein first and second network management
2 devices are separate and distinct network management devices.

1 36. The method of claim 31, wherein first and second network management
2 devices are the same network management device.

1 37. A networking apparatus comprising::
2 means for remotely determining away from a first networking device of a
3 network, whether the network device is meeting a service level for a first group of
4 network traffic of the network;
5 means for remotely determining away from said first networking device,
6 whether said second group of network traffic substantially contributes to said first
7 networking device's non-meeting of said service level for said first group of network
8 traffic, the second group of network traffic being separate and distinct from said first
9 group of network traffic; and
10 means for regulating the second group of network traffic of the network to
11 assist the first networking device in meeting the service level for the first group of
12 network traffic, if said second group of network traffic is determined to substantially
13 contribute to said first networking device's non-meeting of said service level for said
14 first group of network traffic.

1 38. The apparatus of claim 37, wherein said apparatus further comprises means
2 for monitoring one or more network traffic metrics associated with said first group of
3 network traffic that are at least partially indicative of whether the first networking
4 device is meeting said service level for said first group of network traffic.

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